



Sounding Board Meeting #1



Center City Bike Network – Sounding Board
Dawn Schellenberg, Sam Woods & Kenneth Loen
June 30, 2015

Our mission, vision, and core values

Mission: deliver a high-quality transportation system for Seattle

Vision: connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

Presentation overview

- Project background, vision and schedule
- Sounding Board process
- Existing conditions data and technical analysis
- Draft evaluation criteria



Why we're here



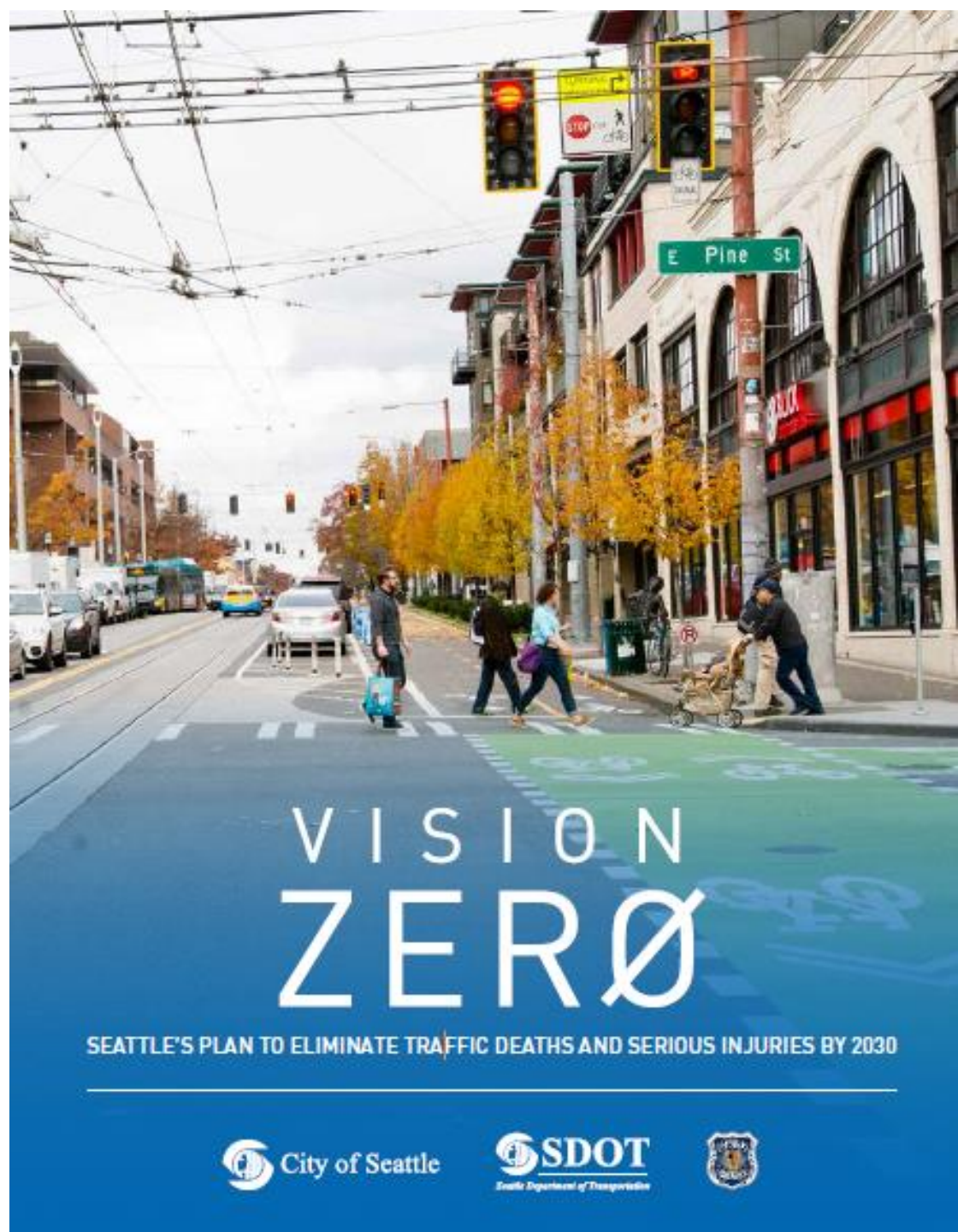
- Seattle is growing –need to accommodate predictable movement of people and goods
- Provide affordable transportation options
- Transform streets into safer and healthier public spaces

Vision Zero

Seattle's plan to eliminate traffic deaths and serious injuries

- Street designs
- Public education and engagement
- Targeted enforcement

www.seattle.gov/visionzero



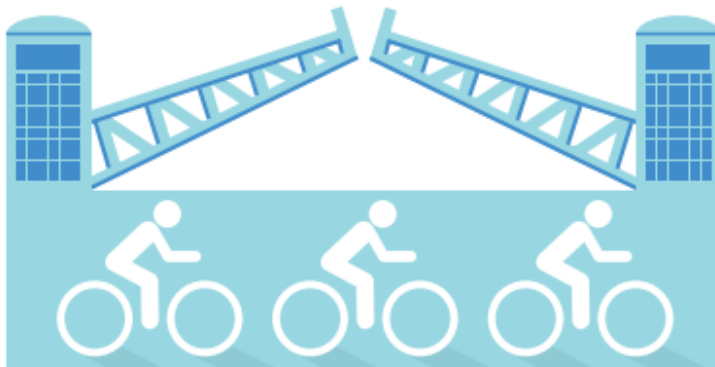
A bicycle network is one solution to help Seattle grow gracefully



INCREASE TRAVEL OPTIONS

69% of people commute downtown by transit, carpooling, biking, and walking.

Source: Commute Seattle Mode Split Survey



MEET GROWING DEMAND

Weekday bike volume at the Fremont Bridge was **up 10%** in 2014 compared to 2013

Source: City of Seattle permanent bike counter

Our project vision

Build a Center City Bike Network that supports a vibrant Seattle by designing a safer, more predictable traveling experience for people walking, biking and driving downtown.

What is a protected bike lane?

Protected bike lanes separate people on bikes from people in cars and are distinct from the sidewalk



Examples around the U.S.



Chicago, IL



San Francisco, CA



Missoula, MT



New York City, NY



Cambridge, MA



Portland, OR

Examples around Seattle



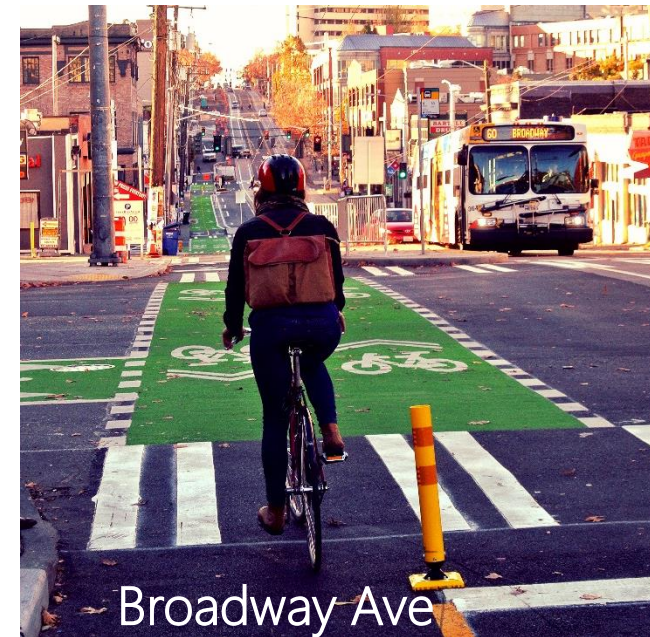
NE 40th St



Alki Ave



Cherry St



Broadway Ave

Project history



Project history

Second Ave Protected Bike Lane Demonstration Project



Photo credit: Cascade Bicycle Club

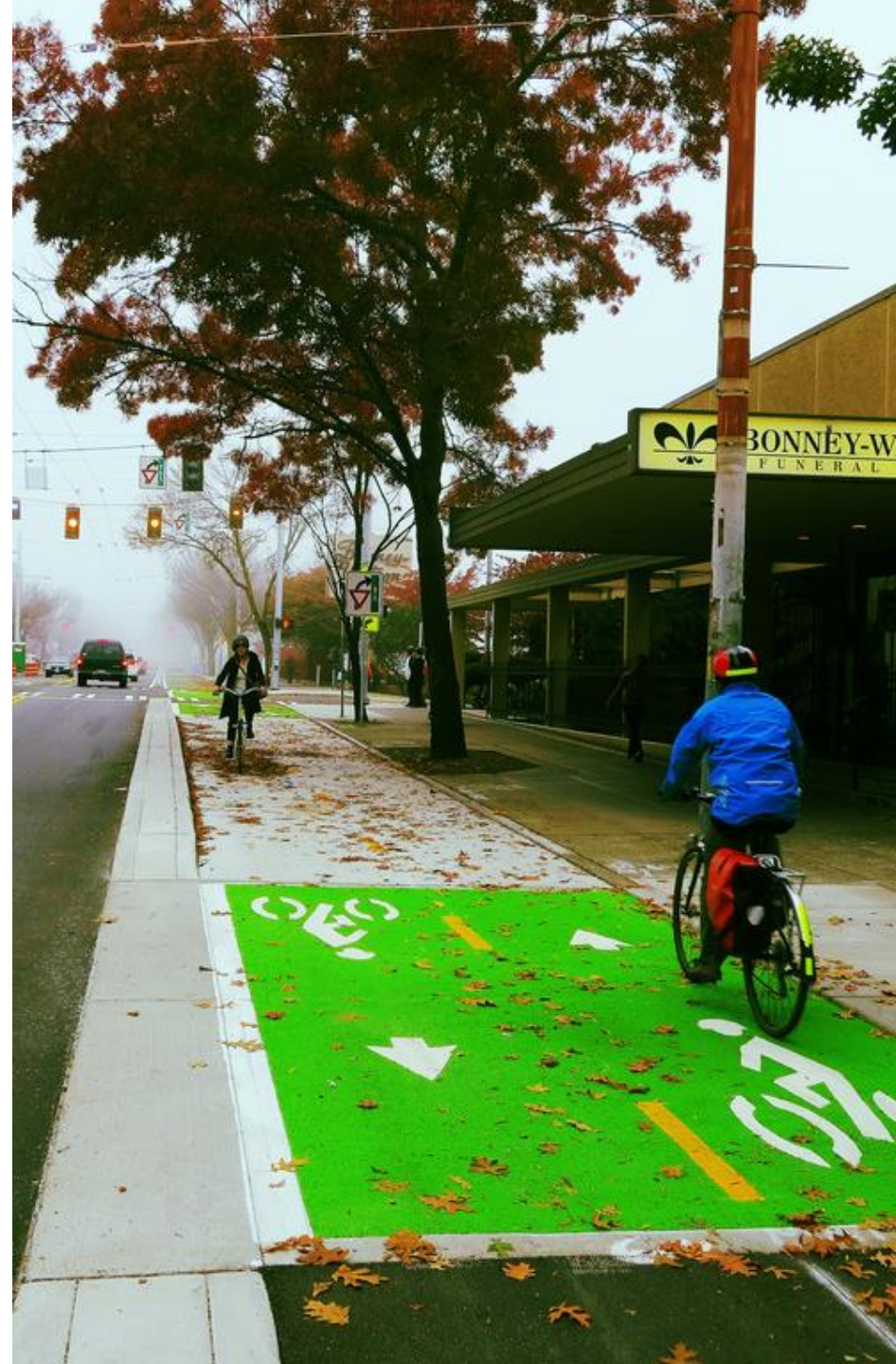
Center City Bike Network goals

Improve **safety** and predictability by separating all modes of travel



Center City Bike Network goals

Expand **connectivity** throughout downtown and the rest of Seattle as our city continues to grow



Center City Bike Network goals

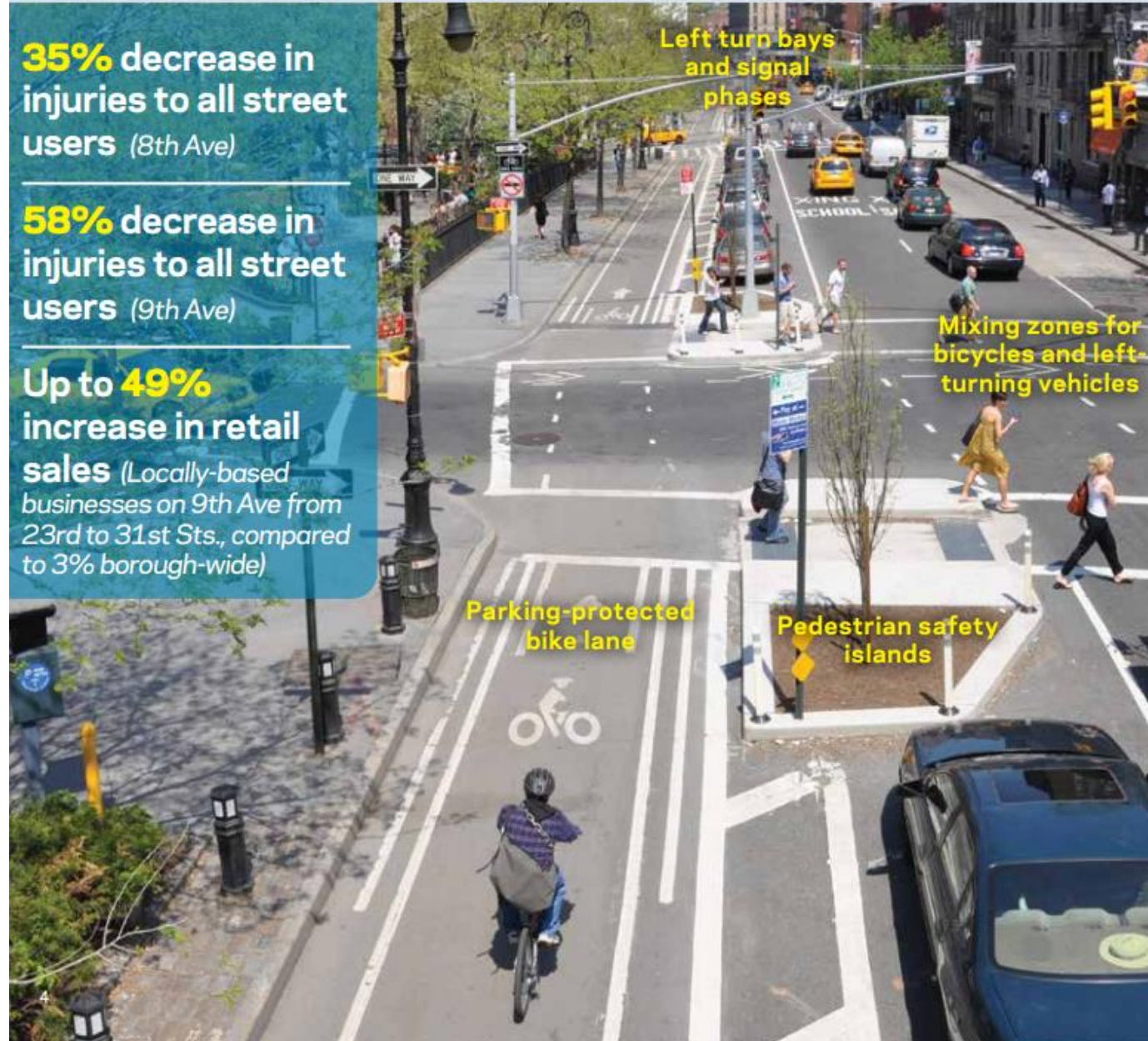
Enhance economic vitality by offering more travel options for getting to businesses

First protected bicycle lane in the US:
8th and 9th Avenues (Manhattan)

35% decrease in injuries to all street users (8th Ave)

58% decrease in injuries to all street users (9th Ave)

Up to **49%** increase in retail sales (Locally-based businesses on 9th Ave from 23rd to 31st Sts., compared to 3% borough-wide)



Left turn bays
and signal
phases

Mixing zones for
bicycles and left-
turning vehicles

Parking-protected
bike lane

Pedestrian safety
islands

Center City Bike Network goals

Provide affordable travel options

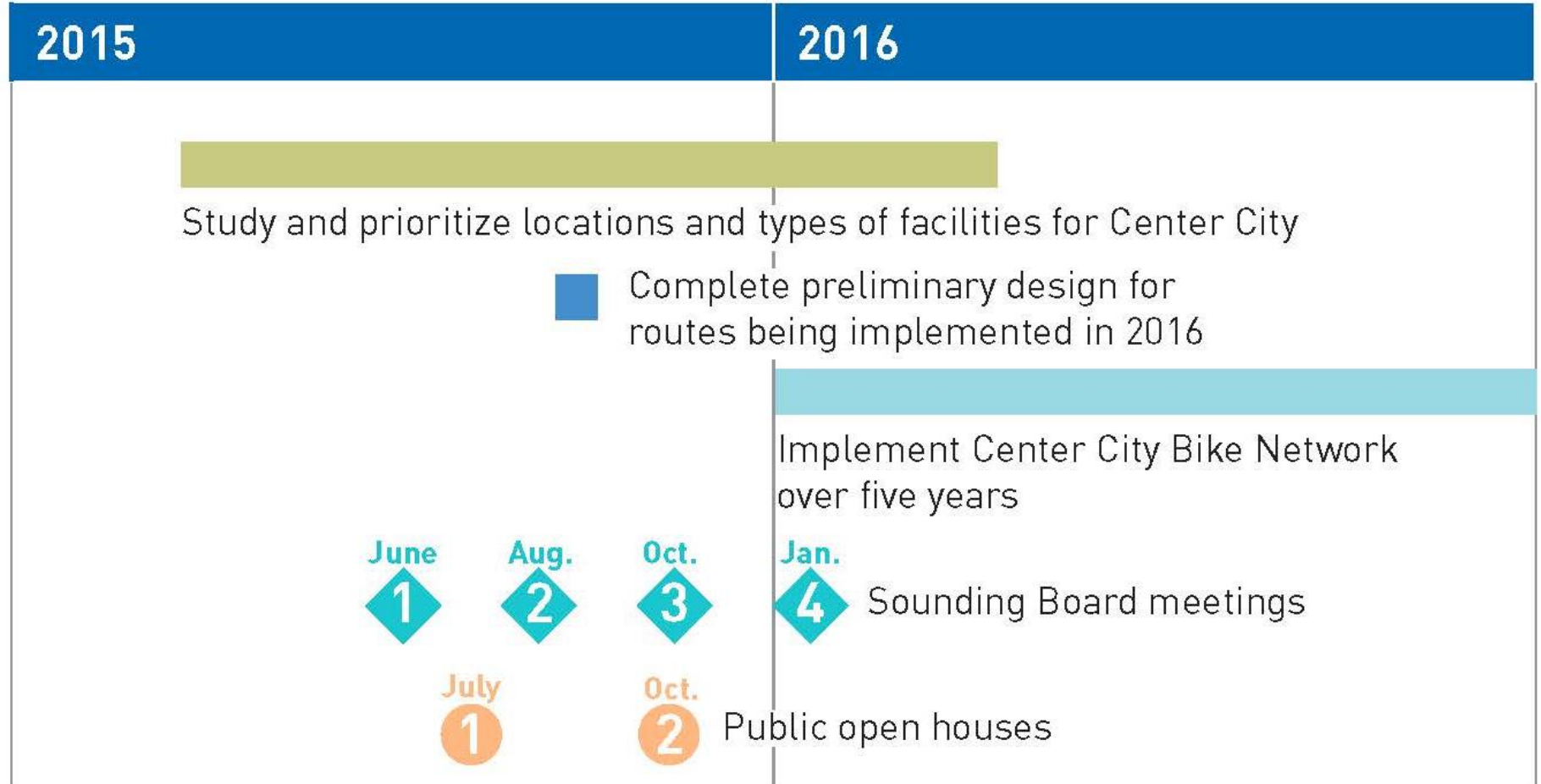


Center City Bike Network goals

Promote
physical activity
and increase
ridership



Center City Bike Network process



Sounding Board feedback so far

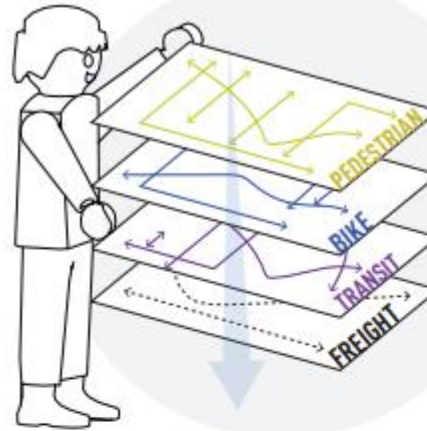
- Improve bicycle infrastructure to **increase ridership** and **accommodate growth**
- Create opportunities for **placemaking**
- **Multifaceted** approach; Integrate all modes of transportation to create **balanced corridors**

Sounding Board feedback so far

- Consider **leisure biking** for tourists
- Regulate bikes to **improve safety** on busy streets
- Encourage **sharing the road** and following the rules
- Consider how bicycling can help **people with low incomes**

Decision making process

Going from plan to project.



1

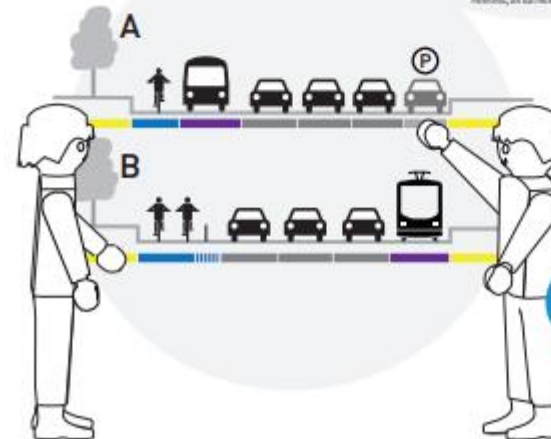
Step 1: Overlay the modal plans

Overlay the needs in the modal plans to identify where priority corridors for many modes exist.

Step 2: Identify the major purposes of the street

Each street in our city is different and they serve different land uses, so the purpose and design of each project will be distinctive.

2



3

Step 3: Develop alternatives

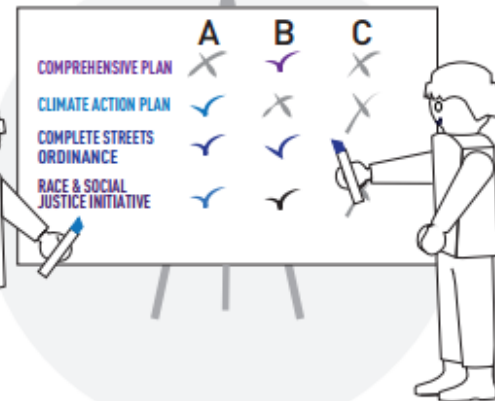
We look at different ways we can allocate space in the street based on the users and needs identified.

Decision making process

4

Step 4: Evaluation of alternatives

We work closely with neighbors and street users to better understand your needs and define the project.

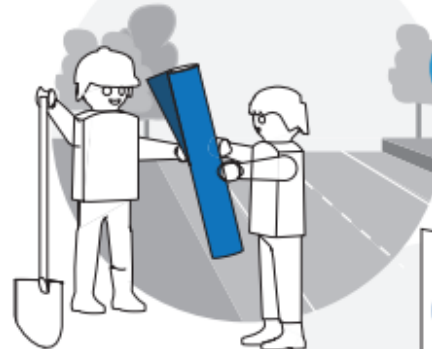


We also apply overarching city policies: Climate Action Plan, Complete Streets Ordinance, our Race and Social Justice Initiative, and Comprehensive Plan. After looking at the options, we pick a final design for the street. We spend time with the community, listening to preferences and concerns.

5

Step 5: Design, construct, and maintain

Our job is not finished when a project is built — it just begins. We work 24/7 to keep the transportation system in a state of good repair so it works as designed.



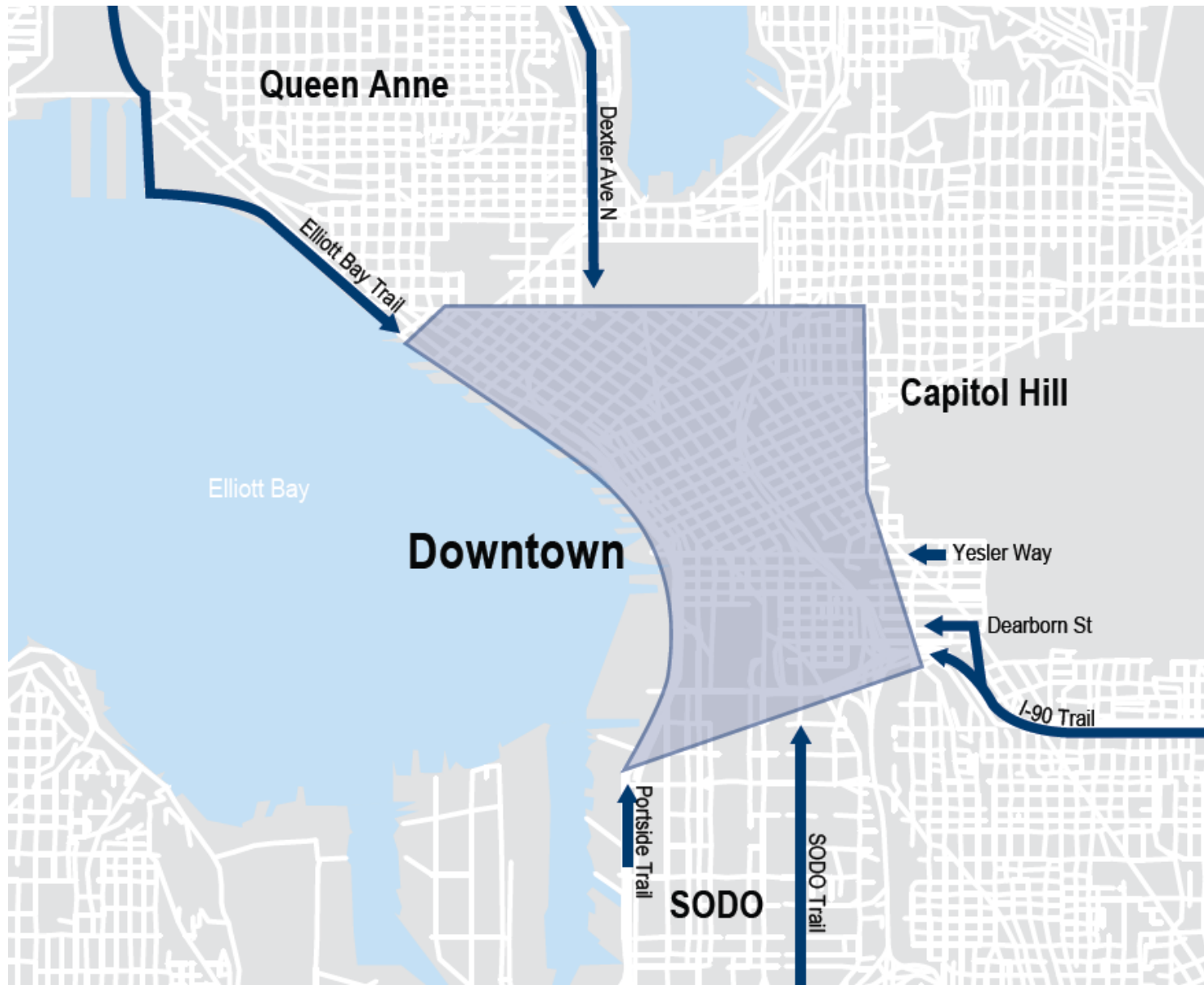
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Step 6: Evaluate and report

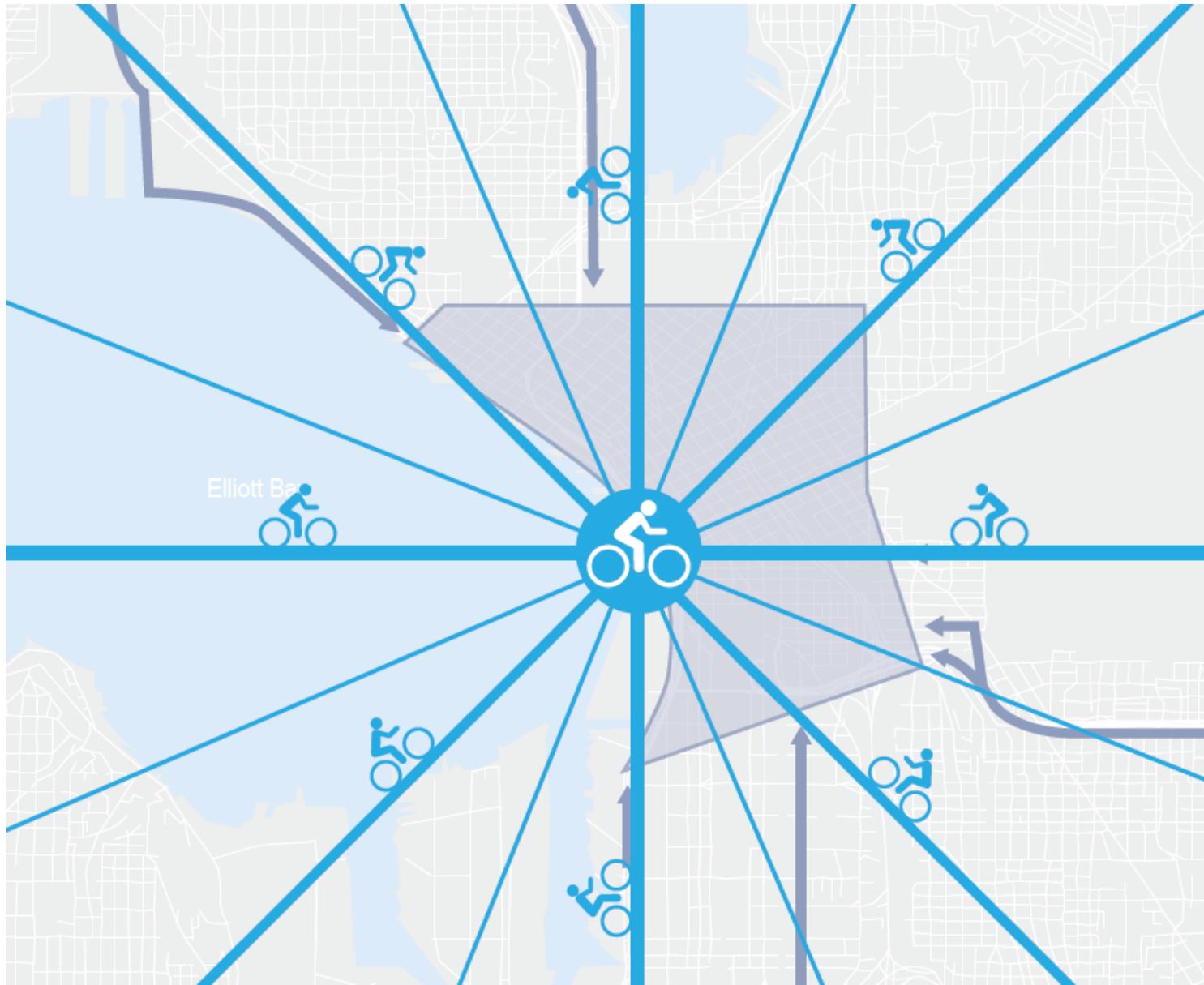
We measure the results of the projects and programs we build, evaluate how pilot materials and designs work, and talk with the public. We track our progress to remain accountable to the people we serve, and continually refine and adjust our work.



What's planned?



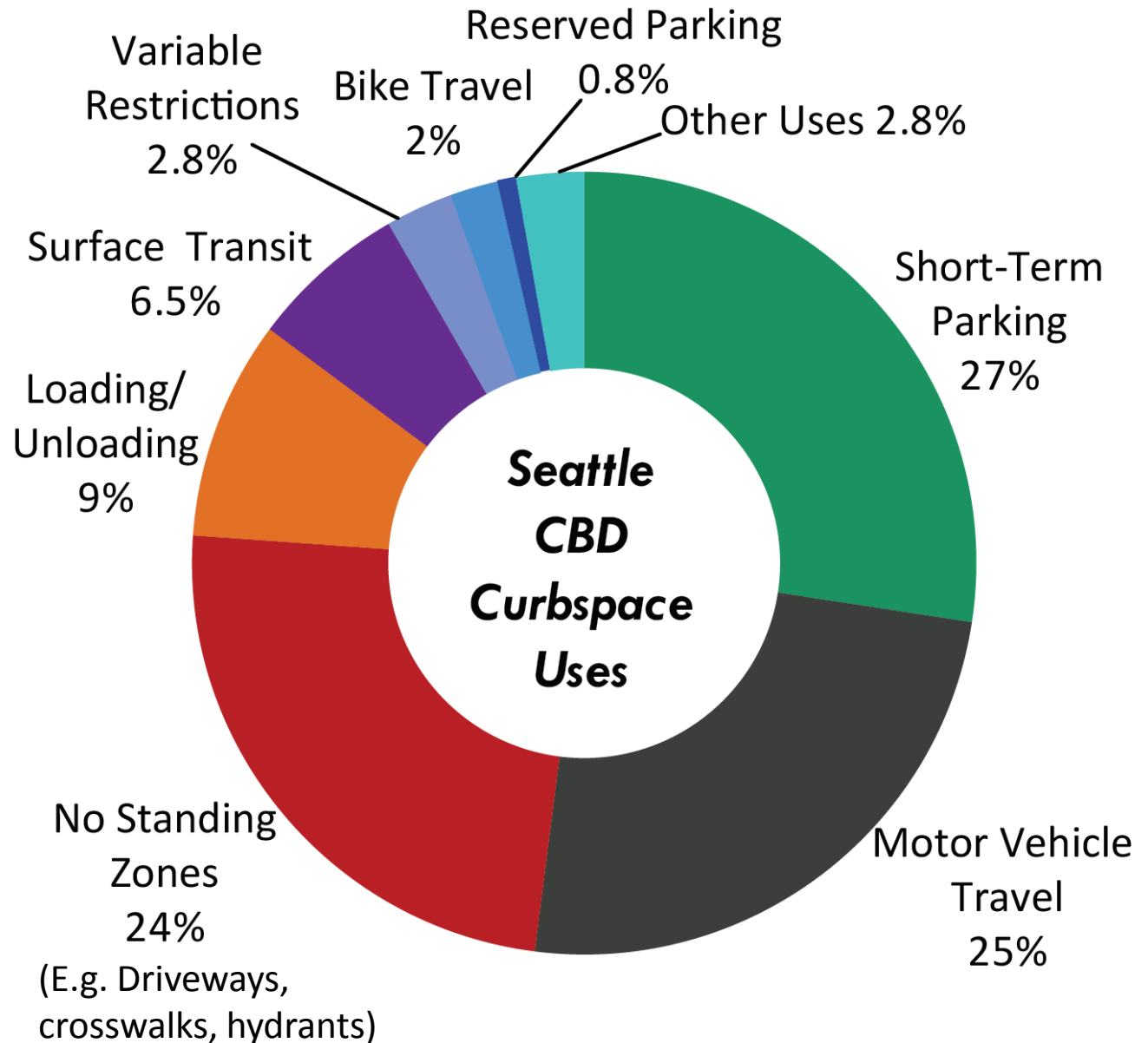
What's planned?



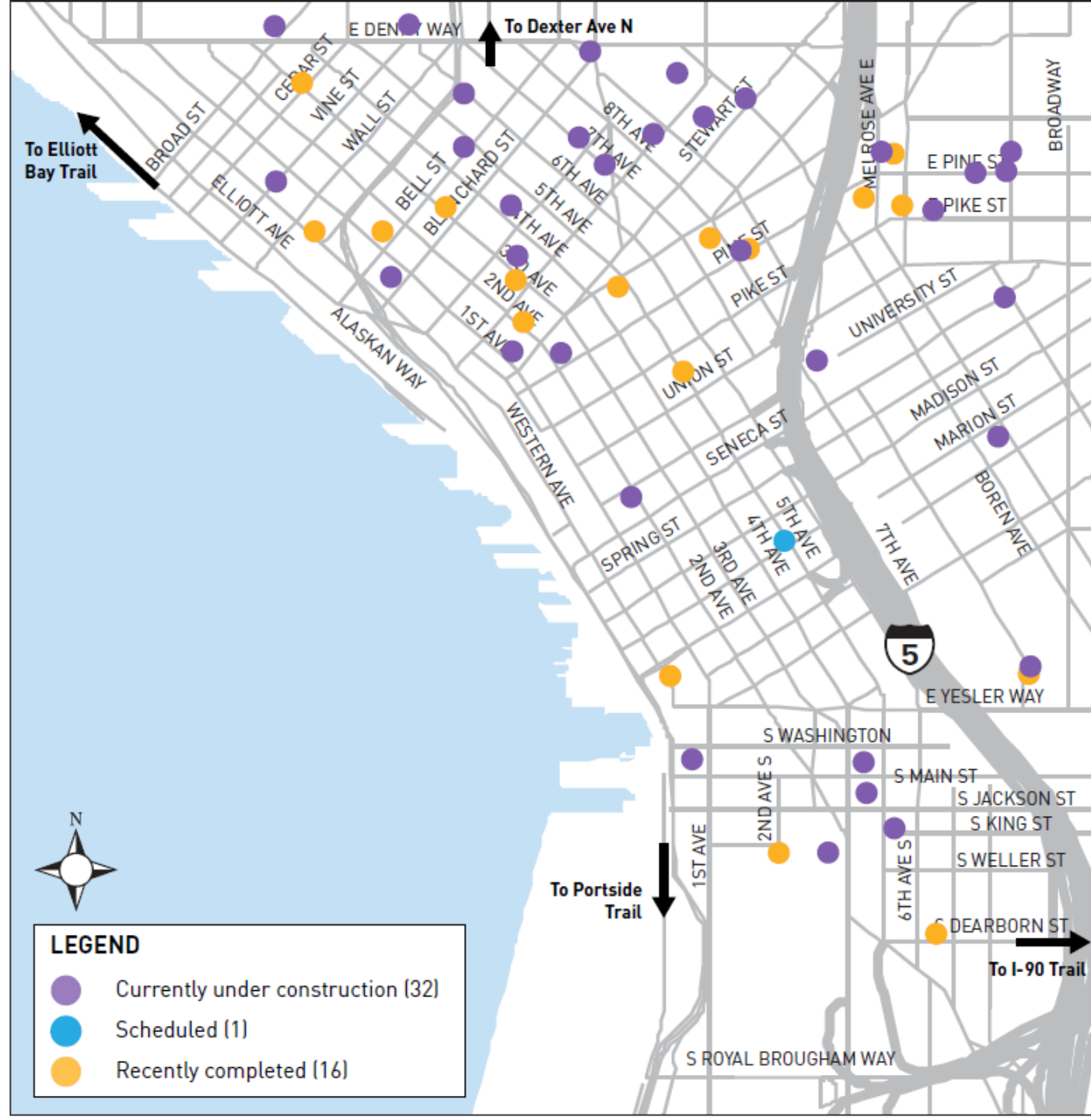
Challenges and opportunities

- Downtown streets support many different uses
- Numerous driveway entrances and turning conflicts and grades
- Large amount of private development
- Public sector investments
- Rapidly expanding transit network

Current curb uses



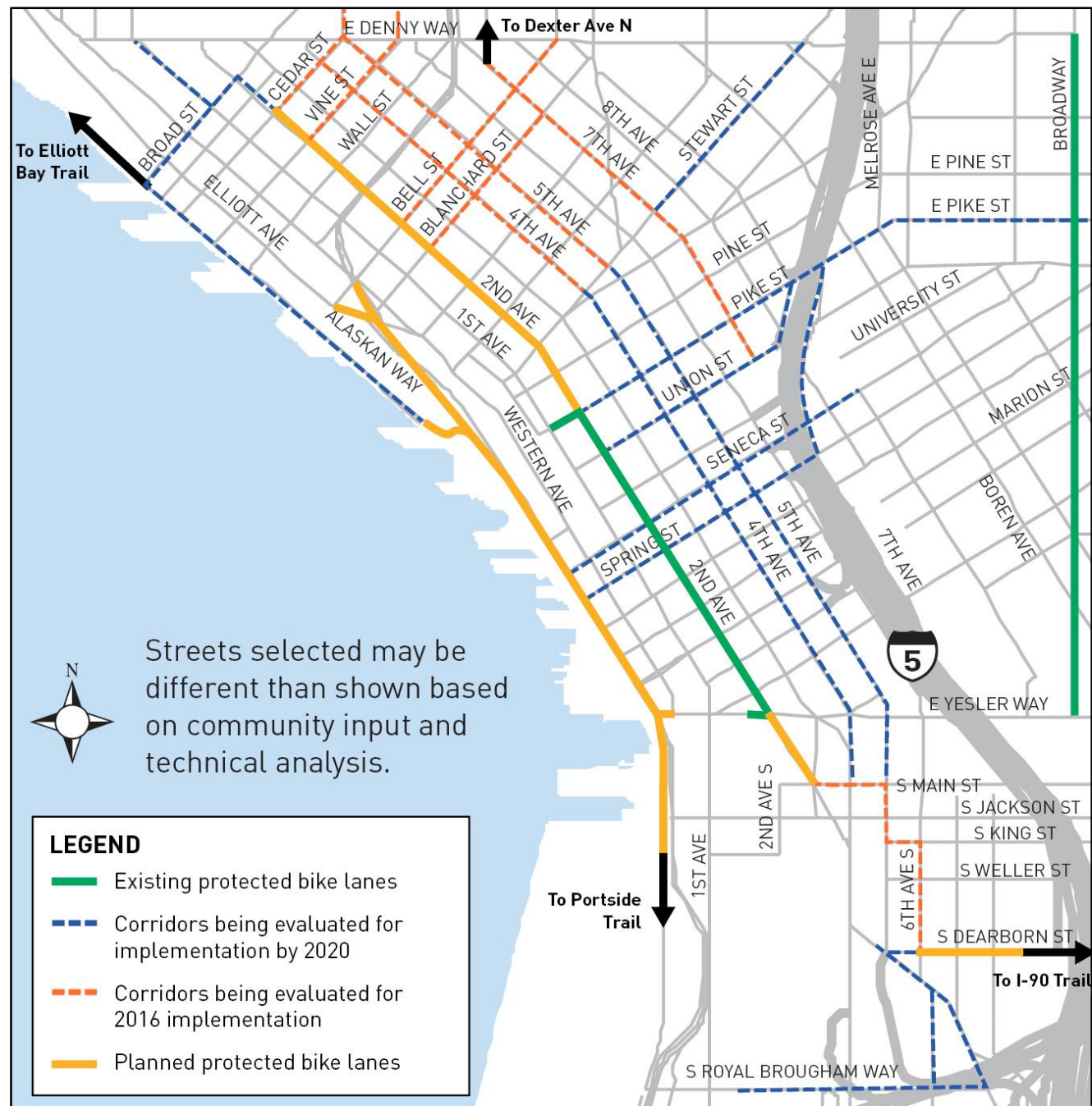
Private sector investments



Public sector investments



Corridors being evaluated for protected bike lanes

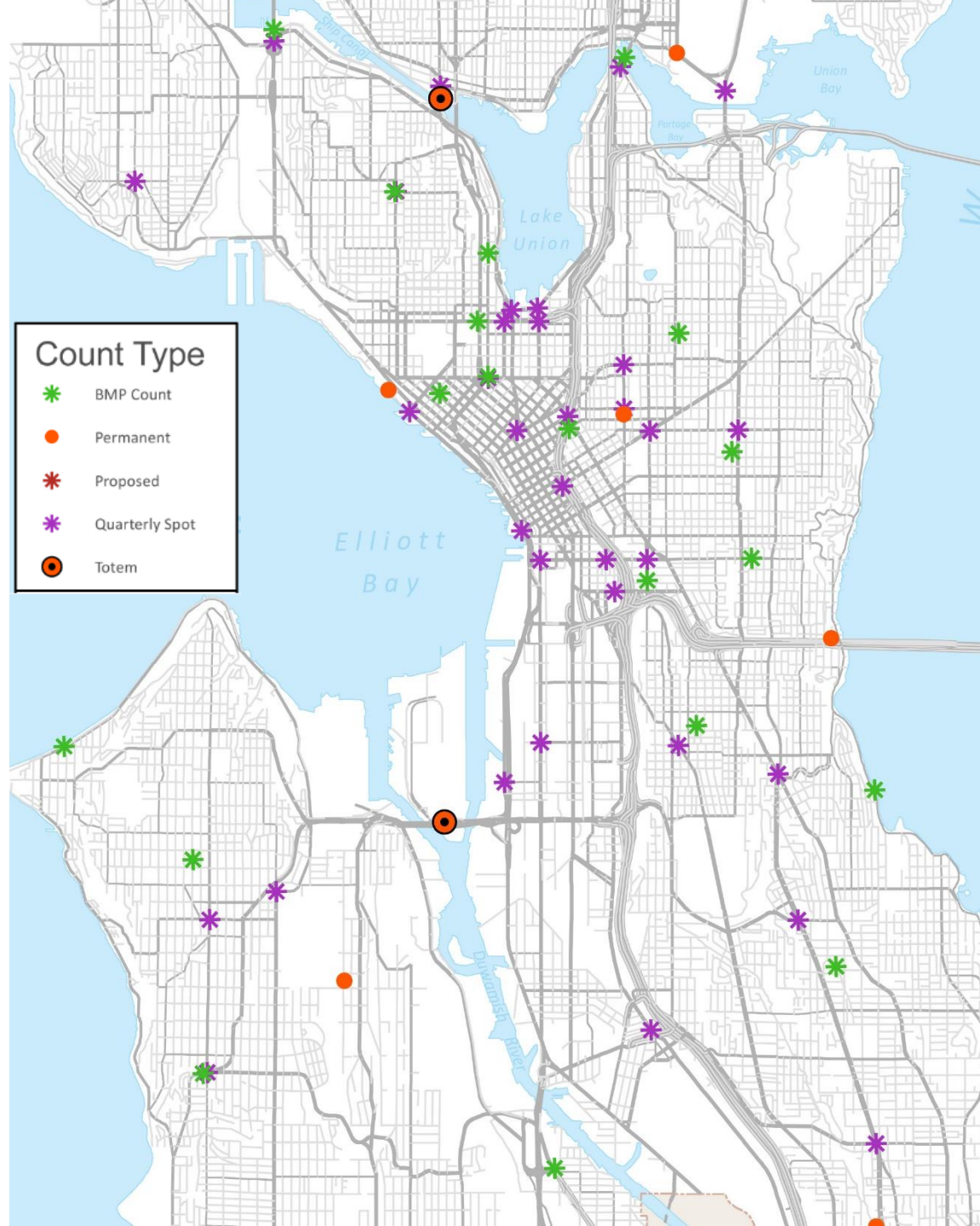


What are we evaluating?

- Where people are riding
- Topography
- Traffic analysis
- Transit, freight and pedestrian planning
- Corridor attributes such as driveways
- Private and public sector investments

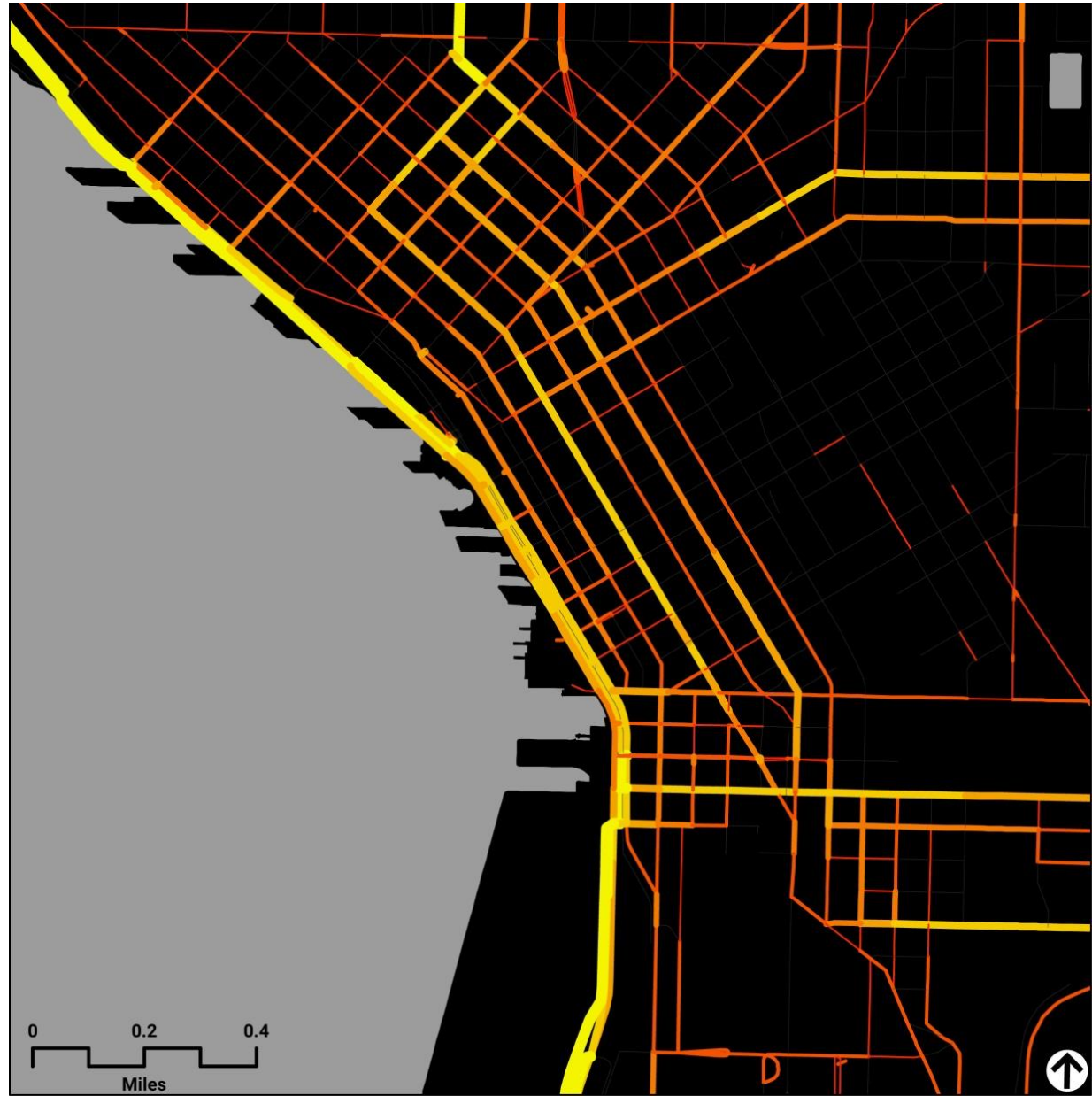
Where are people riding?

- City bicycle counts
- STRAVA data



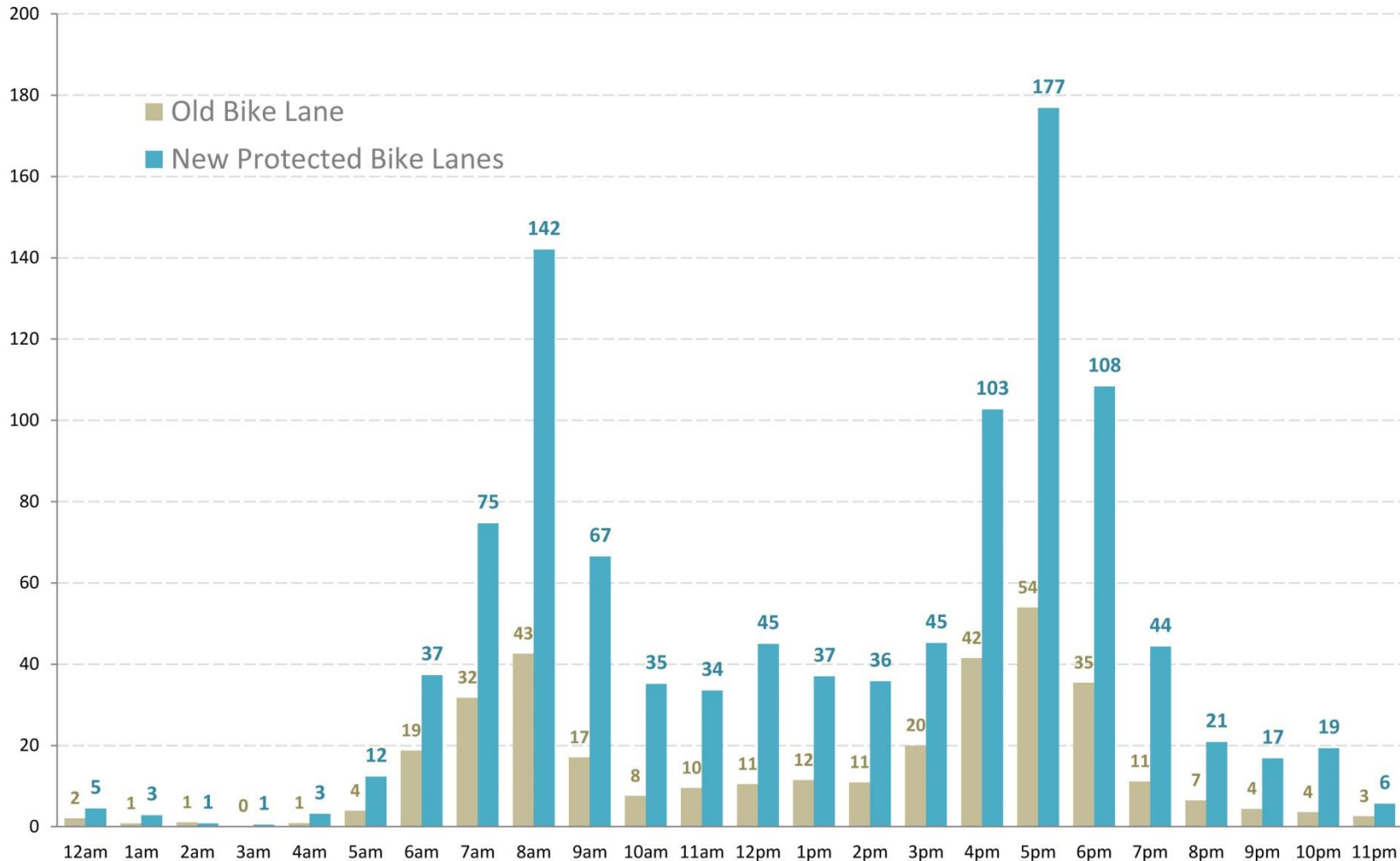
Where are people riding?

Heat map
showing
STRAVA data
and bike counts



Second Ave before and after

Weekday Average Hourly Bicycle Volume - 2nd Avenue



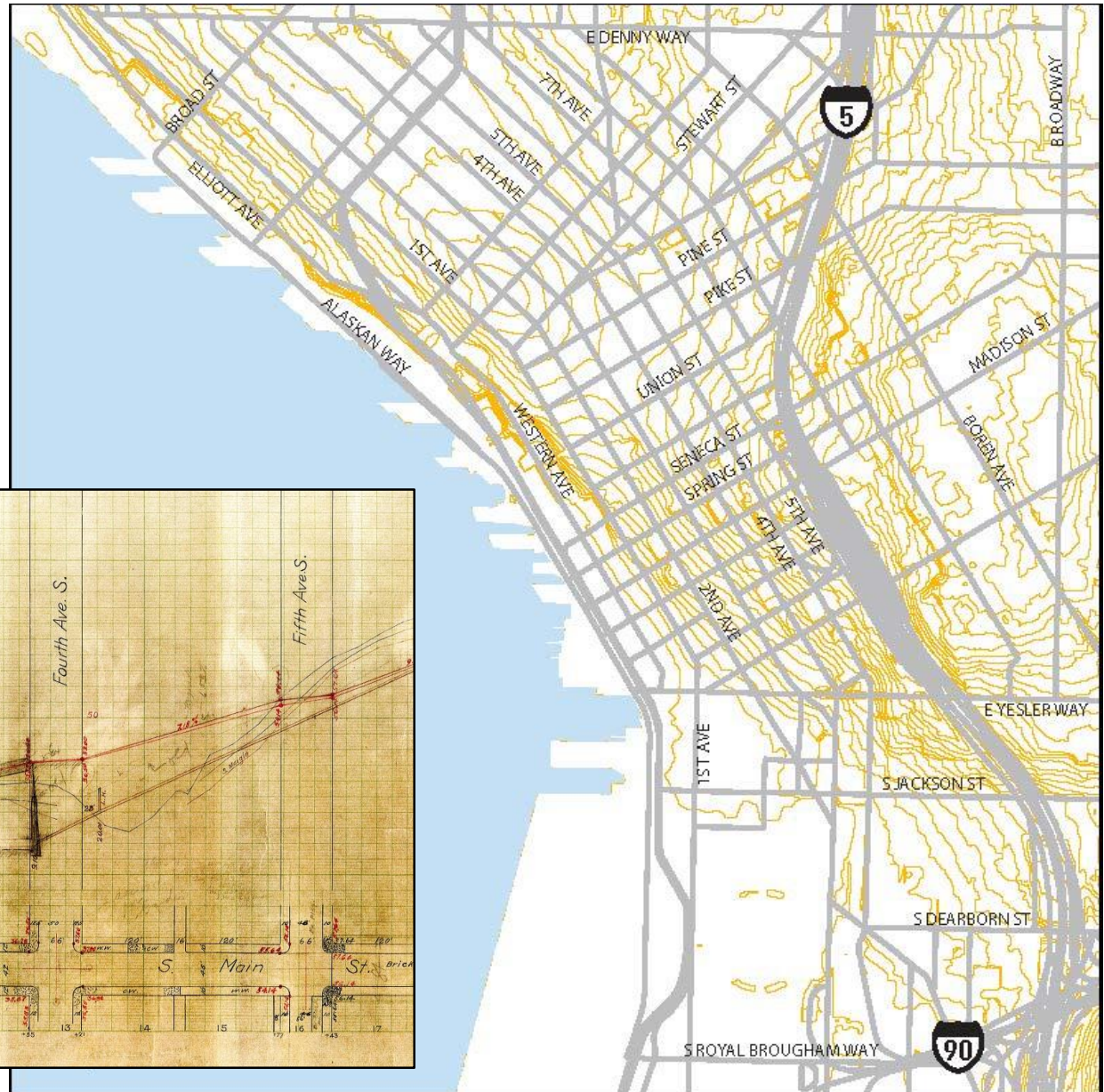
The drawing is a technical engineering plan and profile of a street, likely for a bridge or major road improvement project. It is oriented with the street running horizontally across the page.

Plan View (Bottom):

- Streets:** The main street is labeled "Main St." in the center. To the left, "2nd Ave." and "3rd Ave." are indicated. To the right, "Fourth Ave." and "Fifth Ave." are indicated. A "Side St." is also shown on the far right.
- Dimensions:** Numerous dimensions are provided for the street layout, including widths (e.g., 12.50', 10.00', 18.00', 16.00', 14.00', 12.00', 10.00', 8.00', 6.00', 4.00', 2.00') and offsets (e.g., 1.50', 1.00', 0.50').
- Structures:** A large, detailed structure, possibly a bridge or a large building, is shown in the center-right of the plan view. It has a rectangular footprint with internal divisions and a small structure on top.
- Other Labels:** "S. Main" is written near the center-right. "Side St." is written near the bottom right. "Ave. (E)" is written near the bottom left.

Profile View (Top):

- Grade Line:** A red line represents the proposed street grade. It starts at a low point on the left, rises to a peak over the bridge structure, and then descends towards the right.
- Vertical Curves:** The profile shows vertical curves with labels such as "22' 33" ON CURVE" and "20' 9.00" ON CURVE".
- Dimensions:** Vertical dimensions are given for the profile, including "14.50'", "1.50'", "1.00'", "0.50'", "0.25'", "0.125'", "0.0625'", "0.03125'", "0.015625'", "0.0078125'", "0.00390625'", "0.001953125'", "0.0009765625'", "0.00048828125'", "0.000244140625'", "0.0001220703125'", "0.00006103515625'", "0.000030517578125'", "0.0000152587890625'", "0.00000762939453125'", "0.000003814697265625'", "0.0000019073486328125'", "0.00000095367431640625'", "0.000000476837158203125'", "0.0000002384185791015625'", "0.00000011920928955078125'", "0.000000059604644775390625'", "0.0000000298023223876953125'", "0.00000001490116119384765625'", "0.000000007450580596923828125'", "0.0000000037252902984619140625'", "0.00000000186264514923095703125'", "0.000000000931322574615478515625'", "0.0000000004656612873077392578125'", "0.00000000023283064365386962890625'", "0.000000000116415321826934814453125'", "0.0000000000582076609134674072265625'", "0.00000000002910383045673370361328125'", "0.000000000014551915228366851806640625'", "0.0000000000072759576141834259033203125'", "0.00000000000363797880709171295166015625'", "0.000000000001818989403545856475830078125'", "0.0000000000009094947017729282379150390625'", "0.00000000000045474735088646411895751953125'", "0.000000000000227373675443232059478759765625'", "0.0000000000001136868377216160297393798828125'", "0.00000000000005684341886080801486968994140625'", "0.000000000000028421709430404007434844970703125'", "0.0000000000000142108547152020037174224853515625'", "0.00000000000000710542735760100185871124267578125'", "0.000000000000003552713678800500929355621337890625'", "0.0000000000000017763568394002504646778106689453125'", "0.00000000000000088817841970012523223890533447265625'", "0.000000000000000444089209850062616119452667236328125'", "0.0000000000000002220446049250313080597263336181640625'", "0.00000000000000011102230246251565402986316680908203125'", "0.000000000000000055511151231257827014931583404541015625'", "0.0000000000000000277555756156289135074657917022705078125'", "0.00000000000000001387778780781445675373289585113525390625'", "0.000000000000000006938893903907228376866447925567626953125'", "0.0000000000000000034694469519536141884332239627838134765625'", "0.00000000000000000173472347597680709421661198139190673828125'", "0.000000000000000000867361737988403547108305990695953369140625'", "0.0000000000000000004336808689942017735541529953479766845703125'", "0.00000000000000000021684043449710088677707649767398834228515625'", "0.000000000000000000108420217248550443388538248836994171142578125'", "0.0000000000000000000542101086242752216942691244184970855712890625'", "0.00000000000000000002710505431213761084713456220924854278564453125'", "0.000000000000000000013552527156068805423567281104624271392822265625'", "0.0000000000000000000067762635780344027117836405523121069641111328125'", "0.00000000000000000000338813178901720135589182027615605348205556640625'", "0.000000000000000000001694065894508600677945910138078026741027783203125'", "0.0000000000000000000008470329472543003389729550690390133705138916015625'", "0.00000000000000000000042351647362715016948647753451950668525694580078125'", "0.000000000000000000000211758236813575084743238767259753342628472900390625'", "0.0000000000000000000001058791184067875423716193836298766713142364501953125'", "0.00000000000000000000005293955920339377118580969181149383565711822509765625'", "0.000000000000000000000026469779601696885592904845905746917828559112548828125'", "0.0000000000000000000000132348898008484427964524229528734589142795562744140625'", "0.00000000000000000000000661744490042422139822621147643672945713977813720703125'", "0.000000000000000000000003308722450212110699113105738218364728569889118603515625'", "0.0000000000000000000000016543612251060553495565528691091823642849445593017578125'", "0.0000000000000000000000008271806125530



Traffic

Turning
counts
downtown



Public and private sector investments

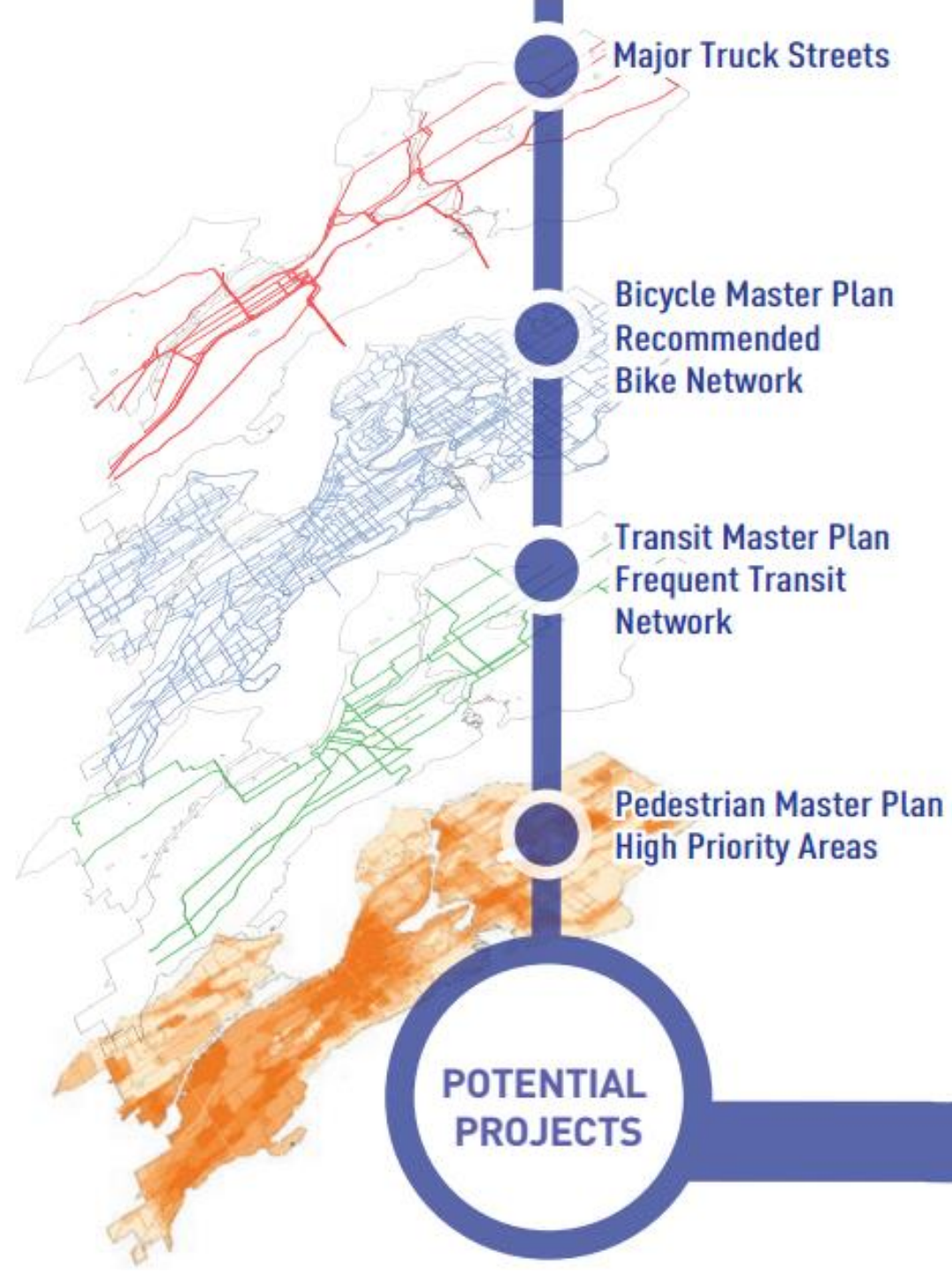
- Streetcar on First Avenue
- Bus Rapid Transit
- Waterfront
- Pike/Pine
- Private developments



Freight, transit and pedestrians

Action: Overlay
Seattle's four modal
plans

Result: Create streets
that move people and
goods



Corridor attributes

Freight
driveway

Turning
movements

Parking
garage
driveway

Loading zone



How do we select which corridors are best for protected bike lanes?

SAFETY

- *Turning Movements*
- *Driveways*
- *Signal Phasing*
- *Buffer*

CONNECTIVITY

- *Connects to Existing Facilities*
- *Addresses System Gaps*
- *Distance / Directness*
- *Access to / from Facility*

RIDER APPEAL

- *Current Ridership Patterns*
- *Topography*
- *Origins / Destinations*
- *Facility Type / User Comfort*

CORRIDOR ATTRIBUTES

- *Existing Street Widths, Lanes, etc.*
- *Traffic Analysis Results*
- *Curb Uses*
- *Transit Routes & Access*
- *Truck Routes & Access*

CONSTRUCTIBILITY

- *Existing Signals*
- *Transit Infrastructure*
- *Existing Utilities*

UNIQUE OPPORTUNITIES

- *Public Space / Parks*
- *Public Amenities*
- *Partnership Opportunities*

Next steps

Outreach:

- Public open house #1:
Tuesday, **July 21**
5–7 PM at Town Hall
- Next Sounding Board
meeting:
Tuesday, **August 25**

Technical analysis:

- Evaluation criteria
- Preliminary analysis
and prioritization

Questions?

WCT@seattle.gov | (206) 909-8578

<http://www.seattle.gov/transportation/wct.htm>

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